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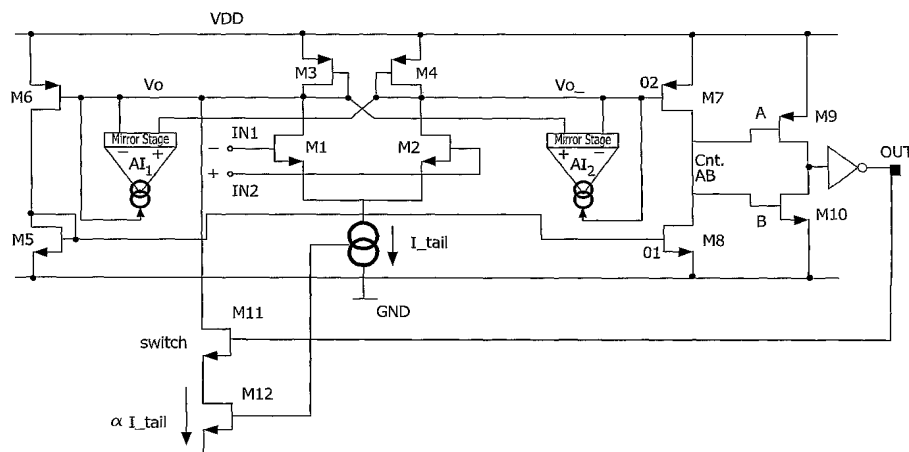
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(54) Title: HIGH SPEED COMPARATOR



(57) Abstract: The invention relates to a comparator with a constant duty cycle for high frequency data signals. Such comparators are often part of an integrated circuit and particularly useful in the mobile phone technology. To achieve the desired constant duty cycle for high frequency data signals, the comparator according to the invention comprises a differential amplifier (M1, M2) having differential inputs (IN 1, IN2) forming the comparator inputs and a first and second amplifier output (Vo, Vo-) forming the comparator outputs of a first comparator stage. Further, a first differential current amplifier (AI1) is provided and connected with its inputs to the amplifier outputs (Vo, Vo-) and with its output to the first amplifier output (Vo). Finally, a second differential current amplifier (AI2) is connected with its inputs to the amplifier outputs (Vo, Vo-) and with its output to the second amplifier output (Vo-).

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